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# (12) United States Patent

Steger et al.

# (54) PROTECTIVE BREATHING APPARATUS INHALATION DUCT

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CPC ......... A42B 3/044; A42B 3/105; A42B 3/288; A62B 17/04; A62B 18/04; A62B 19/00; A62B 21/00; A62B 7/02; A62B 7/08; (10) Patent No.: US 9,636,527 B2 (45) Date of Patent: May 2, 2017

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### (57) ABSTRACT

An improved protective breathing apparatus having a vent hole or one way valve incorporated into the inhalation duct so that the breathing apparatus can safely vent and release a pressure differential during the opening of the storage bag from vacuum storage. The use of an air pressure relief mechanism prevents the rupture of the duct and preserves the integrity of the device.

#### 9 Claims, 3 Drawing Sheets

